

American Marten Surveys in Northern Wisconsin 2004

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Abstract

A total of 36 martens were detected along 206.0 miles of snow tracking along routes in the Chequamegon and Nicolet National Forests. All marten tracks occurred within the Marten Restoration areas of both forests. Marten tracks included 20 along 81.1 miles of 3 regular survey routes in the Nicolet, and 7 along 51.2 miles of 2 regular survey routes in the Chequamegon. A new survey route was tested in the Chequamegon, and 9 martens were detected along the 24.9-mile route. Rate of marten detection for regular survey routes was 13.7 martens/100 miles in the Chequamegon, 24.7 martens/100 miles in the Nicolet.

Introduction

American marten (*Martes americana*) were listed as a state endangered species in Wisconsin in 1972. Between 1975-1983, 172 martens were released into the northern Nicolet National Forest in northeast Wisconsin. Between 1987-1990, 139 martens were released into the Chequamegon National Forest in northwest Wisconsin. Martens were released into Fisher Management Units that have since been designated as Marten Restoration Areas. Terrestrial trapping for furbearers is prohibited in these areas, thus they serve as refuge areas for martens and other furbearers. The Nicolet unit is 188 square miles and the Chequamegon Unit is 344 square miles.

Standardized survey routes were established in the Nicolet unit in 1987, and in the Chequamegon in 1991 (Jim Ashbrenner 1994). Periodically other survey routes are examined in or near these Marten Restoration Areas (MRA). The current report includes results for marten surveys in winter 2003-2004.

Methods

Three routes of about 25 to 30 miles each were established in the 2 MRA's (Figure 1 & 2). Two additional routes were also established outside the MRA in the Nicolet, and an additional route was run in the southern portions of the Chequamegon. One of the standardized routes in the Chequamegon was not run in 2004 due to weather limitations. Routes were followed slowly with four-wheel drive vehicle one day after a fresh snowfall (Ashbrenner 1984). Tracks of individual martens, other carnivores, and porcupines were recorded along each survey route.

Results and Discussion

Twenty martens were detected along 81.1 miles of survey routes 1-3 in the Nicolet, but none were detected along 48.8 miles along routes 4-5 (Table 1). Routes 1-3 were in the MRA, but 4-5 occurred to the east of the refuge area. Marten detection rate for routes 1-3, was 24.7 martens per 100 miles surveyed.

Seven martens were detected along 51.2 miles of survey routes 1 and 2 in the Chequamegon, and 9 were detected on 24.9 miles of a new survey route. All 3 survey routes were in the MRA, but route 4 followed the southern border of the refuge in part. Marten detection rate for routes 1 and 2 was 13.7 martens per 100 miles surveyed.

Marten track detection increased from winter 2002-2003 for both areas. The Nicolet marten observation rate was one of the highest observed, but the rate in the Chequamegon was similar

to the long-term average for this area. Ratio of marten/ fisher tracks observed was 1:2.6 in the Chequamegon and 1:2.3 in the Nicolet. In general this ratio has been near 1:3 for these 2 species, and thus seems to be near normal.

Other mammals detected on marten track surveys included coyotes, dog, fox, bobcat, otter, raccoon, and porcupine in the Nicolet, and coyote, wolf, dog, fox, bobcat, mink, otter and porcupine in the Chequamegon. In general coyotes appeared to be more abundant on the Nicolet, but fox and wolf were more abundant in the Chequamegon.

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Literature Cited

Ashbrenner, J.E. 1994. Distribution of martens in the Nicolet National Forest, 1994. Wisconsin Wildlife Surveys. 4(1): 96-102.

Table 1. *Mammal track observations along marten survey routes in the Nicolet National Forest, winter 2003-2004.*

Date	Route No.	Snow Depth (in)	Miles Run	Number of Tracks Observed				
				Marten	Fisher	Coyote	Bobcat	Other
03/04/04	1	17"	29.7	11	22	13	3	2 Otter 4 Dog
12/20/03	2	9"	23.0	6	10	17	4	2 Otter 2 Dog 2 Fox 1 Porcupine
03/12/04	3	28"	28.4	3	5	10	0	4 Dog 1 Porcupine 1 Raccoon
01/24/04	4	12"	32.3	0	6	20	4	1 Dog 4 Fox 2 Porcupine
01/28/04	5	13"	16.5	0	3	9	5	1 Fox 1 Porcupine
Totals			129.9	20	46	69	16	4 Otter 11 Dog 7 Fox 5 Porcupine 1 Raccoon
Rate per 100 mi (1-3)			(81.1)	24.7	45.6	49.3	8.6	4.9 Otter 12.3 Dog 2.5 Fox 2.5 Porcupine 1.2 Raccoon
2002- 2003			(79.5)	11.3	71.7	65.4	7.5	5.0 Otter 1.3 Dog 7.5 Fox 2.5 Wolf 2.5 Porcupine
2001- 2002			(123.4)	11.3	51.9	77.0	12.2	2.4 Otter 3.2 Dog 10.5 Fox 4.9 Porcupine

Table 1. Continued.

Date	Miles Run	Number of Tracks Observed				
		Marten	Fisher	Coyote	Bobcat	Other
2000- 2001	(79.1)	25.3	58.2	49.3	8.8	1.3 Otter 7.6 Fox 3.8 Porcupine
1999- 2000	(80.9)	12.4	23.5	32.1	2.5	4.9 Otter 1.2 Dog 3.7 Fox 3.7 Porcupine
1998- 1999	(79.4)	23.9	27.7	27.7	5.0	6.3 Otter 3.8 Fox
1997- 1998	(84.1)	11.9	26.2	41.6	2.4	3.6 Otter 2.4 Fox 3.6 Porcupine
1996- 1997	(76.2)	13.8	37.9	36.8	5.7	2.3 Otter 4.6 Fox 2.3 Porcupine

Table 2. *Mammal track observations along marten survey routes near Clam Lake in the Chequamegon National Forest, winter 2003-2004.*

Date	Route No.	Snow Depth (in)	Miles Run	Number of Tracks Observed				
				Marten	Fisher	Coyote	Bobcat	Other
01/08/04	1	5"	22.2	1	13	6	3	3 Otter 9 Fox 9 Wolf 1 Porcupine
12/13/03	2	7"	29.0	6	9	5	1	2 Otter 8 Fox 1 Porcupine
12/30/03	4	7"	24.9	9	19	0	1	3 Mink 2 Otter 4 Dog 7 Fox 1 Porcupine
Totals			76.1	16	41	11	5	3 Mink 7 Otter 4 Dog 24 Fox 9 Wolf 3 Porcupine
Rate per 100 mi. (1-2)			51.2	13.7	43.0	21.5	7.8	9.8 Otter 33.2 Fox 17.6 Wolf 3.9 Porcupine
2002-2003 (1)			59.7	1.7	13.4	16.8	5.0	13.4 Otter 6.7 Fox 3.4 Wolf 1.7 Porcupine
2001-2002 (2-3)			45.2	11.1	48.7	13.3	11.1	2.2 Dog 35.4 Fox 28.8 Wolf 2.2 Porcupine
2000-2001			94.4 1 & 3 only	19.1 (10.2)	59.6	11.7	6.4	6.4 Mink 1.1 Badger 8.5 Otter 19.1 Fox 21.3 Wolf 1.1 Porcupine

Table 2. Continued.

Date	Route No.	Snow Depth (in)	Miles Run	Number of Tracks Observed				
				Marten	Fisher	Coyote	Bobcat	Other
1999-2000	None		58.3	20.6	70.3	41.2	12.0	3.4 Mink 18.9 Otter 5.1 Dog 22.3 Fox 8.6 Wolf 3.4 Porcupine
1998-1999			72.6	9.7	41.4	17.2	1.4	2.8 Dog 30.4 Fox 9.7 Wolf 1.4 Porcupine
1997-1998								
1996-1997			76.2	17.1	56.4	10.5	2.6	1.4 Otter 23.2 Fox 7.1 Wolf 2.8 Porcupine

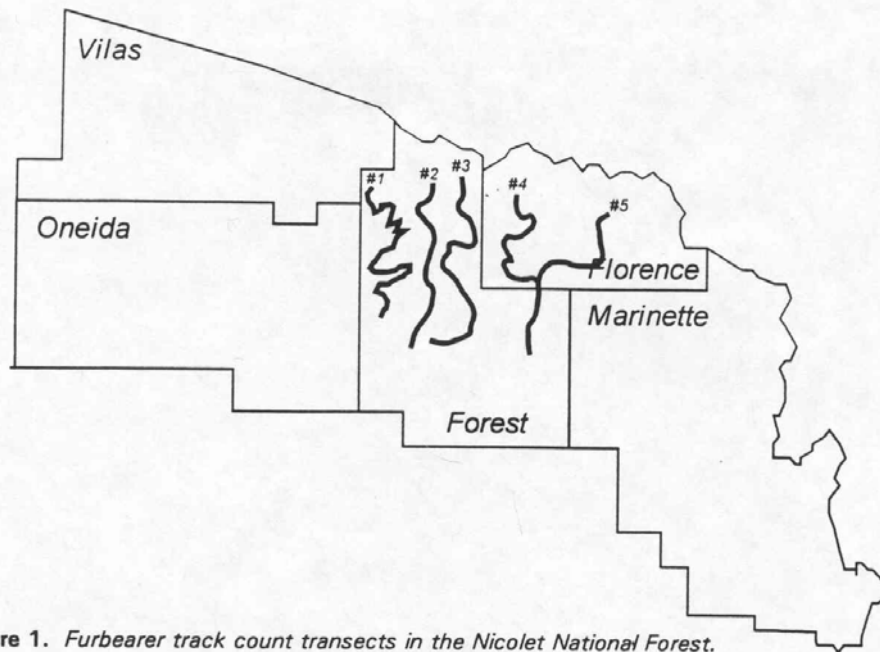


Figure 1. *Furbearer track count transects in the Nicolet National Forest.*

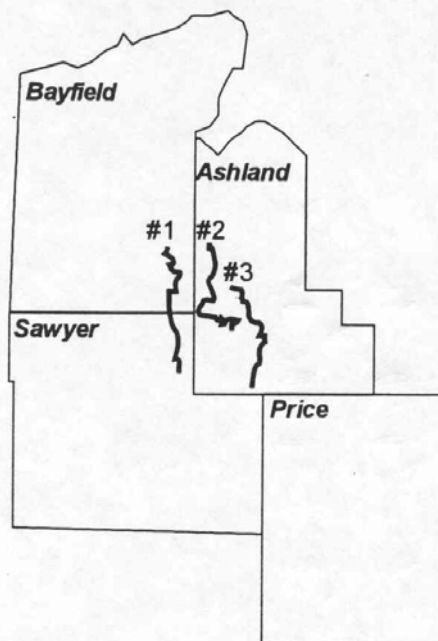


Figure 2. *Furbearer track count transects in the Chequamegon National Forest.*